

April 7, 1992

U.S. Environmental Protection Agency
75 Hawthorne Ave.
San Francisco, CA 94105

Ref No.: T190492-001
TDD No.: T099201-013
PAN No.: ECA1877-SAA

Attention: William E. Lewis, Deputy Project Officer

Subject: **King Neptune Manufactures Site Assessment, Bell Gardens,
California**

On January 31, 1992, U.S. Environmental Protection Agency (USEPA) On-Scene Coordinator (OSC) D. Shane tasked the Technical Assistance Team (TAT) to conduct a preliminary assessment at an illegal lead smelter. The smelter is operated by King Neptune Manufacturers (KNM), a company that produces lead scuba diving weights. The smelter is operated on a residential property located at 6612 Clara Street, Bell Gardens, California (See Attachment A, Figure 1). The property is owned by F. Teurman, Senior and consists of a residential dwelling, a storage building and the smelter building. The smelter was historically operated by Mr. Teurman and is currently operated by Mr. Teurman's son, F. Teurman, Junior. According to long-time residents of the area, the smelter has operated at this location for twenty years.

Regulatory involvement at KNM started in early 1984 with an inspection by Los Angeles County Department of Health Services Hazardous Materials Control Program (HMCP) Inspections and Enforcement Section (Enforcement). This inspection took place January 1984 and samples collected indicate the presence of lead in the soil excess of the California Total Threshold Limit Concentration (TTLIC) hazardous waste determining level of 1000 mg/kg. Attachment B, Table 1 lists all non-USEPA sampling results.

KNM held a California Radioactive Materials License until September 2, 1984, at which time the license expired and was not renewed. On February 14, 1985, the California Department of Health Service, Radiologic Health Branch (DOHS) ordered KNM to divest of all radioactive materials to a licensed facility. KNM did not respond to the order issued by DOHS and continued to receive radioactive materials. The radioactive materials were in the form of lead pigs used to store nuclear medicines.

On April 5, 1985, HCMP Enforcement section conducted a joint inspection with Los Angeles County Department of Health Services Radiation Management Branch (RMB) at the KNM facility which resulted in the issuance of a Notice of Violation (NOV) from HCMP which ordered the firm to cease all illegal hazardous waste operations, including the illegal transport and disposal of hazardous waste. Samples collected during that inspection indicated the presence of lead in excess of TTLIC. On July 11,

1985, HCMCP issued a directive to KNM ordering the business to discontinue all practices that contribute to further contamination of the property. This directive specified the following:

- o removal of all lead contamination throughout the smelter building,
- o implementation of a ventilation system that was in compliance with South Coast Air Quality Management District requirements,
- o implementation of an approved cleanup plan to remove and legally dispose of all lead contaminated soils,
- o transportation under manifest of all lead dusts and soils contaminated with lead to a permitted recycling facility or Class I facility, and
- o proper storage and labeling of all lead wastes.

KNM did not comply with the HMCP directive. Based on the results of the April 5, 1985 inspection and the presence of children residing at the KNM property, the site was referred to Los Angeles County Department of Health Service Toxics and Epidemiology section, Child and Adolescent Health Unit. In March 1988, a letter was sent to R. Teurman (F. Teurman, Senior's son) requesting that the residents of the property at 6612 Clara Ave., especially the children, be tested for lead. Although Mr. Teurman initially indicated that he would cooperate, he refused to bring his family in for testing. On June 28, 1992, a second letter was sent registered mail to Mr. Teurman. The letter was returned unopened. Mr. Teurman eventually removed the children from the residence.

In December 1991, the city of Bell Gardens served an inspection warrant at KNM to obtain evidence of city building code violations. During the inspection, several lead pigs were gathered as evidence by the Bell Gardens Police Department (BGPD). Upon noticing the radioactive symbols on the pigs, BGPD notified HCMCP, who in turn notified RMB. These agencies in cooperation with the city of Bell Gardens conducted an inspection under the same warrant previously used. During this inspection, an extensive radiation survey was conducted and samples were collected from inside the yard around the smelter and within the smelter building itself. The radiation survey did not detect levels in excess of regulatory limits. The sample analysis documented levels in excess of TTLC in the soil as well as inside the building.

W.E. Lewis
Page 3
Ref No.: T190492-001
DRAFT REPORT ONLY

In response to the findings of the December inspection, HMCP issued a NOV and Order to Comply (NOV/OTC) to F. Teurman Jr. which ordered him to discontinue all operations resulting in the generation of hazardous waste and to remove and legally dispose of all lead contaminated materials. Mr. Teurman did not respond to the NOV/OTC.

Due to the hostility and uncooperative attitude of the responsible party and the magnitude of the contamination on-site, HMCP contacted the USEPA for assistance in late January 1992. On February 10, 1992, TAT member R. Wise met with members of HMCP to review the historical data collected on KNM.

On February 12, 1992, TAT members R. Wise and D. Tomlinson in conjunction with personnel from HMCP and M. Martinet, Bell Gardens Property Rehabilitation Section Manager conducted a site assessment at KNM. At the time of the assessment C. Teurman, the wife of F. Teurman, Sr., admitted the assessment team to the property, but was unable to open the smelter building of inspection. During this assessment, TAT conducted photographic and video documentation of the property outside the smelter building and the surrounding neighborhood.

After completion of the assessment at the Clara Street property, TAT and HMCP personnel conducted an site assessment at 7856 Salt Lake Ave, Huntington Park, California. This address was in HMCP's file as a second possible smelter location. At this location, contact was made with F. Teurman, Jr. Mr. Teurman admitted both TAT and HMCP personnel to the facility. He stated that smelter operations had not been conducted at the Salt Lake facility but, only at the Clara Street facility. Mr. Teurman stated that the Salt Lake facility conducted hydro-testing of scuba tanks. During the visit to this location, both TAT and HMCP personnel noticed crates of new diving weights, lead ingots and castings for diving weights.

He also stated that the smelter had not operated in three to four months. Although he admitted that there was a considerable amount of lead dust on the floor inside the smelter, he denied that any contamination had migrated off-site. When asked if he could open the smelter at 6612 Clara Street, Mr. Teurman was initially evasive, but finally agreed to meet TAT on the morning February 18, 1992, to open the facility for an assessment. After getting Mr. Teurman to agree to site access, TAT and HMCP personnel departed the Salt Lake facility.

After completion of the February 12, 1992 assessment, Mr. Wise

W.E. Lewis
Page 4
Ref No.: T190492-001
DRAFT REPORT ONLY

contacted OSC Shane and provided him with a synopsis of the day's events. OSC Shane, tasked TAT to prepare a sampling plan for implementation during the February 18, 1992 assessment. The sampling plan is in Attachment C.

On the morning of February 18, 1992, TAT members R. Wise, A. Talamantez and N. Parson accompanied by Mr. Martinet, conducted a site assessment at KNM site. Although TAT had made arrangements with Mr. Teureman, Jr., to obtain access to the facility, he did Not show up for the site assessment. Due to questions concerning property ownership, TAT did not conduct sampling on the 6612 Clara Street property that day. TAT instead, after obtaining property owner permission, conducted soil sampling of the residences surrounding the KNM. Conversations with the residents surrounding the site, indicate that the smelter had been operating on regular basis and that the information that Mr. Teurman had provided concerning smelter operation was incorrect.

A total of 14 samples were collected including 13 field soil samples, one duplicate sample and a Matrix Spike/Duplicate Matrix Spike (MS/MSD). The samples were custody sealed and logged on a chain of custody form for storage prior to analysis. The samples were stored at the Los Angeles TAT office until March 6, 1992, when the samples collected both on-site and off-site were delivered to the laboratory together.

Between February 18 and March 5, 1992, OSC Shane pursued various avenues to gain access 6612 Clara Street Property. Initially, Mr. Martinet of the city of Bell Gardens agreed to obtain an inspection warrant under which the site assessment could be conducted. But due to problems with the city's management, he was unable to obtain the warrant. The property access issue was then shifted over to USEPA Office of Regional Consul (ORC). The ORC worked closely with the U.S. Attorney General's office (USAG) to obtain permission to enter the property and the smelter to obtain samples. The USAG was able to secure permission for a site assessment on March 5, 1992.

On March 5, 1992, TAT members R. Wise and C. Jones accompanied by OSC Shane and two members of the U.S. Marshal's Service met at the site to perform the site assessment. On-site, they were met by Mr. Martinet. Information provided by local residents to TAT indicate that Mr. Teurman had operated the smelter that morning at approximately 0400 hours.

Upon arrival, the site assessment team was granted access to the property and smelter by Mr. Teurman, Jr. During the site assessment TAT and OSC Shane conducted extensive photographic

W.E. Lewis
Page 5
Ref No.: T190492-001
DRAFT REPORT ONLY

documentation of the smelter. A total of 12 samples were collected on the property. Ten soil samples were collected outside the smelter property in the yard at 6612 Clara Street, including nine field samples, one duplicate and one MS/MSD. Two samples were collected in the smelter building. The samples were custody sealed and logged on a chain of custody. All samples were delivered to Calscience Environmental Laboratories (CEL) on March 6, 1992 for total lead analysis per SW-846 method 6010 under QA2 protocol.

Sample analysis documented several samples with lead concentrations above TTLC. Lead concentrations in the samples collected off-site document the presence of elevated lead concentrations in the public right of way directly in front of 6612 Clara Street (sample #3) and in the drainage pathway directly adjacent to the site in the alley (sample #4). Off-site sample concentrations range from 3.42 mg/kg (ppm) up to 11,100 mg/kg. Sample locations and concentrations are listed in Attachment A, Figure 2 and Attachment B, Table 2. On-site soil sample concentrations range from 118 mg/kg up to 5,900 mg/kg. Samples collected in the smelter had concentrations of 455,000 mg/kg and 547,000 mg/kg respectively. This data was validated per OSWER directive # _____. The raw data and data validation summary is included in Attachment D.

The site is currently under surveillance by HCMP and Los Angeles County Fire Department. In case of smelter operation, HCMP will contact the USEPA Region IX Spill phone. TAT is currently preparing for an extensive pre-removal assessment further define the extent of contamination for use in determining the best method of site mitigation and abatement. This assessment will include preparation of a site specific XRF model for real-time assessment of soil contamination, sampling of nearby residences and businesses to attempt to determine the exposure to those residences and research into treatment options.

If there are any questions concerning this report, please do not hesitate to contact this office.

Sincerely,

Robert L. Wise
Technical Assistance Team

attachments

cc: D. Shane, On-Scene Coordinator
File
M. Martinet, City of Bell Gardens
G. Munos, Los Angeles County Fire Department

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ATTACHMENT A
FIGURES

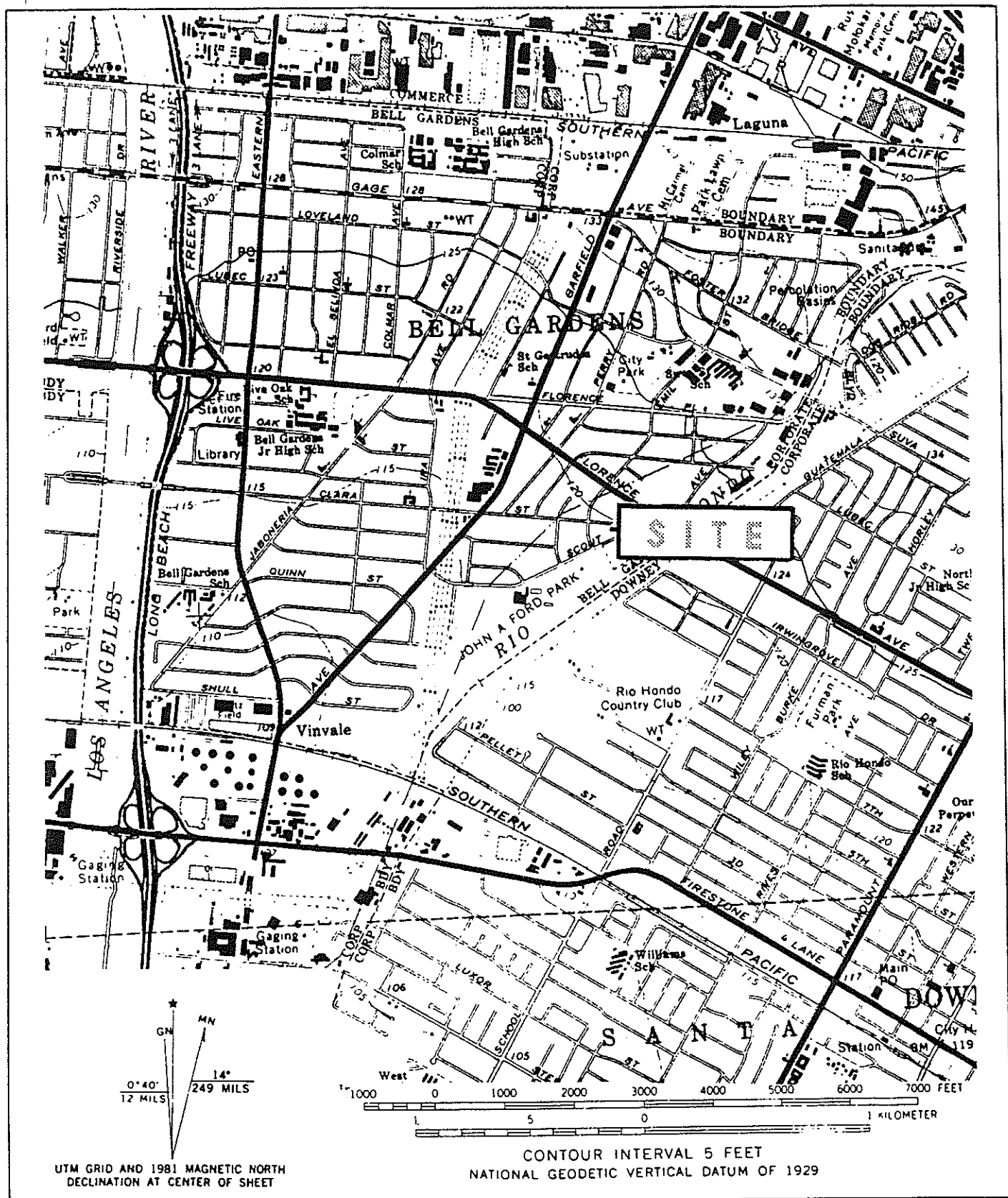
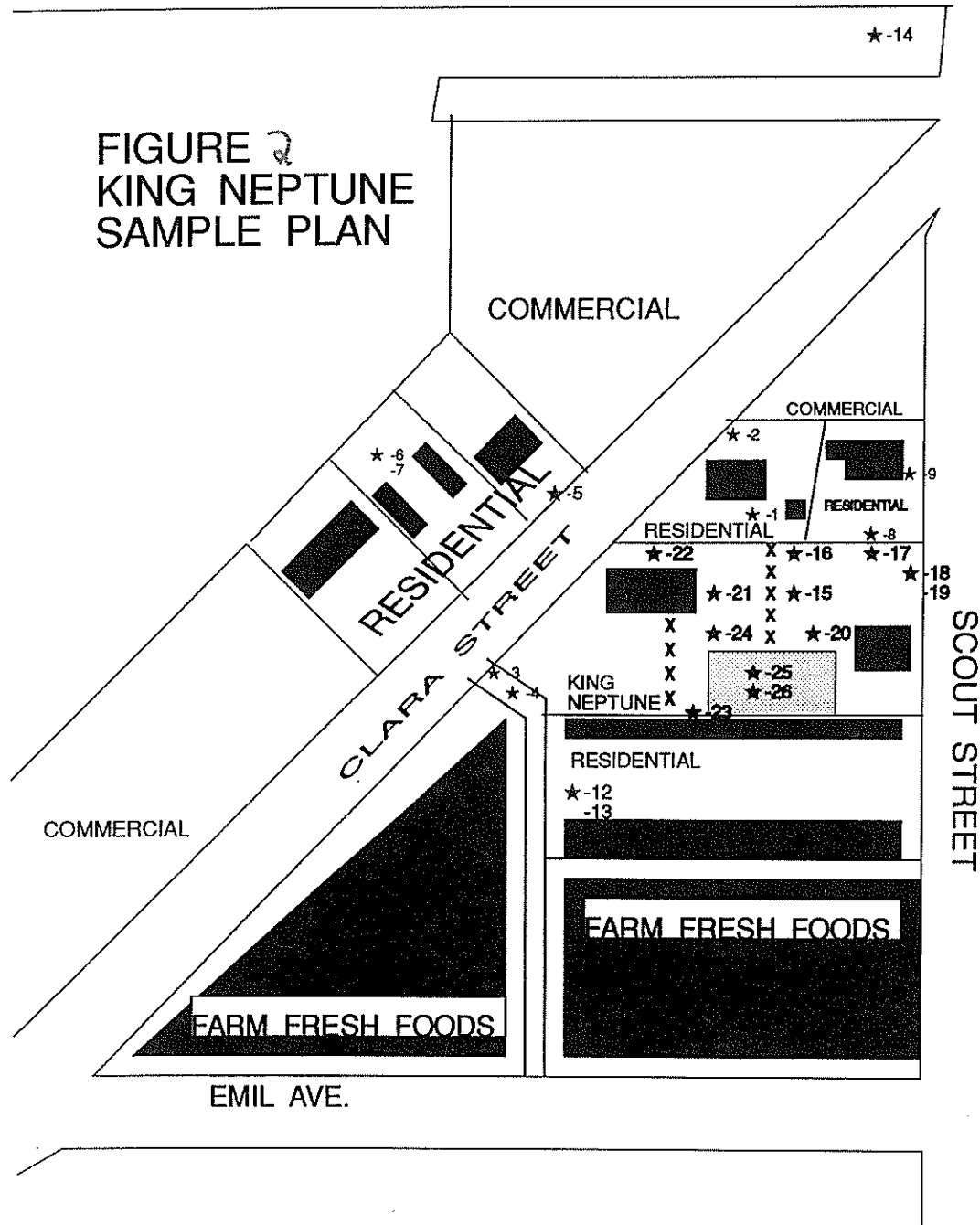


FIGURE 1
SITE LOCATION
KING NEPTUNE MANUFACTURERS

FLORENCE AVE.

FIGURE 2
KING NEPTUNE
SAMPLE PLAN



RESIDENTIAL

COMMERCIAL

ADULT SCHOOL

RIO HONDO

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ATTACHMENT B

TABLES

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TABLE 1
LOS ANGELES COUNTY SAMPLING RESULTS

DATE	LOCATION/SAMPLE #	CONCENTRATION
01-23-84	Soil outside property line fence / #1-MG	38,020.80 ppm
01-23-84	Soil in backyard / #2-MG	1,249.99 ppm
01-30-84	Northeast corner of alleyway on Emil St. / 1-30-84MG #1	213.50 ppm
01-30-84	1759 Scout Ave., near alleyway, one inch sample / 1-30-84MG #2	140.60 ppm
04-05-85	Rear of SFD / #4-5-85-1	11,800.00 ppm
04-05-85	Center yard adjacent to wash board / #4-5-85-2	1,300.00 ppm
04-05-85	Cement walk, north side of the facility / #4-5-85-3	48,000.00 ppm
04-05-85	Front of 7745 Scout Ave. / #4-5-85-4	7,790.00 ppm
04-05-85	Two feet from apartment complex / #4-5-85-5	Non-Detect
04-05-85	Lead waste in container, next to smelter	45,200.00 ppm
12-19-91	Top of smelting pot / #251*	23,430.00 ug
12-19-91	Top of work table / #252*	9,750.00 ug
12-19-92	Top of lead ingot storage table / #228*	9,540.00 ug
12-19-92	Top of cutting saw / #227*	9,930.00 ug
12-19-92	Floor below smelting pot / #12-19-91FD-1	120,000.00 ppm
12-19-91	Floor below cutting saw / #12-19-91FD-2	128,000.00 ppm
12-19-91	Soil outside garage, 25 feet from pot / #12-19-91FD-5	2,330.00 ppm
12-19-91	Soil outside garage, 10 feet from pot / #12-19-91FD-6	324.00 ppm

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TABLE 2
TECHNICAL ASSISTANCE TEAM SAMPLING RESULTS

SAMPLE #	SAMPLE LOCATION	RESULTS
1	6622 Clara St., in front of the garage	471.00 ppm
2	6622 Clara St., northwest corner of lot	25.80 ppm
3	Public right of way in front of 6612 Clara St. at intersection with alley	6,120.00 ppm
4	Drainage pathway in alley bordering 6612 Clara St.	11,100.00 ppm
5	Right of way in front of fenced house 6625 Clara St.	147.00 ppm
6	Backyard of 6615 Clara St.	78.30 ppm
7	Duplicate of Sample #6	74.90 ppm
8	7743 Scout St., along fence line bordering 6612 Clara St.	272.00 ppm
9	7743 Scout St., along fence line bordering Scout St.	59.00 ppm
10	Adult school playground	3.42 ppm
11	John Anson Ford Park	18.10 ppm
12	Garden at 7751 Scout St.	100.00 ppm
13	Garden at 7751 Scout St.	135.00 ppm
14	Intersection of Scout St. and Florence Ave.	35.40 ppm
15	6612 Clara St., along north fence line where old house was located	1,910.00 ppm
16	6612 Clara St., along northeast fence line where old house was located	234.00 ppm
17	6612 Clara St., along southeast fence line where old house was located	118.00 ppm
18	6612 Clara St., fence line an Scout St.	2,010.00 ppm
19	Duplicate of Sample #18	1,370.00 ppm
20	6612 Clara St., southwest side of yard along walkway	3,540.00 ppm
21	6612 Clara St., northeast side of yard	507.00 ppm
22	6612 Clara St., backyard next to house	4,460.00 ppm
23	6612 Clara St., corner next to electrical room	3,040.00 ppm
24	6612 Clara St., west side of backyard next to smelter building	5,900.00 ppm
25	6612 Clara St., inside of smelter building, floor dust	547,000.00 ppm
26	6612 Clara St., inside of smelter building, smelter slag	455,000.00 ppm

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ATTACHMENT C
SAMPLING PLAN

Sampling QA/QC Work Plan

King Neptune Manufacturers

TDD No.: T099201-013
PAN No.: ECA1877-SAA

Prepared for:

U.S. Environmental Protection Agency
Emergency Response Section
Region 9

Prepared by:

Technical Assistance Team
Los Angeles, California

Approvals

Ecology And Environment, Inc.

EPA

Robert Wise
Robert Wise
Project Manager

6-17-92
Date

Dan Shane Date
On-Scene Coordinator

1.0 BACKGROUND

King Neptune Manufacturers has been operated by F. Teurman, the responsible party (RP), as a lead smelter for 20 plus years. The source of the lead which was smelted was lead pigs used to store nuclear medicines and possibly car batteries.

The site is located at 6612 Clara Street, Bell Gardens in the county of Los Angeles in the state of California. The site is located in a mixed residential and commercial district. Immediately adjacent to the site are residences and a food processing plant (see Figure 1).

The King Neptune Manufacturers site is a referral from the Los Angeles County Fire Department Health and Hazard Unit. Site regulatory history dates back to 1983 with an inspection by the Los Angeles County Health Services (LACoHS) Hazardous Materials Control Program. Since 1983 the site has been investigated by the above two agencies, the LACoHS Toxics and Epidemiology Branch, LACoHS Radiation Management Branch, Bell Gardens Building Code Enforcement Section, Bell Gardens Police Department, and the Los Angeles County District Attorneys Office.

Several sampling rounds have been conducted on-site that have documented the presence of lead contamination above regulatory limits in the soil on-site. Based on past business practices there is sufficient evidence to believe that contamination may have migrated off-site onto surrounding residential and commercial properties.

2.0 DATA USE OBJECTIVES

The objective of this project / sampling event is to characterize the extent and severity of contamination. Sampling will be conducted to verify previous on-site data and to determine if contamination has migrated. Data gathered during this assessment will be used to determine if the criteria for a CERCLA removal action as defined under the NCP has been met and for support data in a CERCLA 106 Administrative Enforcement Order.

Sample data will be evaluated against California TTLC levels. Samples may be reanalyzed for California STLC at a later date.

3.0 QUALITY ASSURANCE OBJECTIVES

Quality assurance level 2 (QA 2) protocol will be followed for this sampling event. QA 2 is a verification objective used to verify analytical (field or lab) results. This objective for data quality is available for data collection activities that require qualitative and/or quantitative verification of a "select portion of sample findings. This quality objective is intended to allow the OSC to focus on specific pollutants and specific levels of concentration quickly, by using field screening methods

and verifying at least 10 % by more rigorous analytical methods.

4.0 APPROACH AND SAMPLING METHODOLOGIES

4.1 Sampling Equipment

The following equipment will be utilized to obtain environmental samples from the respective media/matrix:

Parameter/Matrix -----	Sampling Equipment -----	Dedicated -----	Container Type -----
Metals in Surface Soil	Trowel	Yes	8 oz glass
Metals in Soil at 1 Foot	Hand Auger	No	8 oz glass

A complete equipment list is included in the Site Safety plan in Attachment A.

4.2 Sampling Design

Prior to the collection of samples, an XRF survey will be conducted to determine areas of possible lead contamination. A generic model will be used initially to identify sample locations. Samples will be collected in areas of varying concentration (low to high) to allow for preparation of a site specific XRF model if necessary for future use on-site.

Once the sample location has been identified, a sample will be collected at that location and the sample location mapped in reference to the smelter building. A total of 30 samples will be collected.

Ten samples will be collected on the King Neptune facility property. Two samples will be collected at each of the two residences north of the facility. Five samples will be collected at the residence directly south of the facility. One sample will be collected from a facility drainage sediment collection point. Three background samples will be collected at the residence near the intersection of Florence Ave. and Scout Street, the school at the intersection of Scout Street and Emil Street and the park southeast of the site on Scout Street, respectively. Quality assurance samples will be collected including, two MS/MSD sample sets (four samples total), rinsate blank and two field duplicates.

All samples will be collected into a paper paint bucket and thoroughly homogenized. Samples will then be packaged to allow for RF splits.

Samples will be submitted to a California certified analytical laboratory for determination of total lead. Analysis will be performed per U.S. EPA SW - 846 Method ~~7431~~
7421

7. Site observations.
8. Identification and description of samples and locations.
9. Subcontractor information and names of on-site personnel.
10. Date and time of sample collections, along with chain-of-custody information.
11. Record of photographs.
12. Site sketches.

4.4.2 Sample Labels

Sample labels must clearly identify the particular sample, and should include the following:

1. Site name
2. Time sample was taken.
3. Sample preservation.
4. Initial of sampler(s).
5. Analysis requested.
6. Sample identification number

Sample labels will be securely affixed to the sample container.

4.4.3 Chain of Custody Record

A Chain of Custody record will be maintained from the time the sample is taken to its final deposition. Every transfer of custody will be noted and signed for, and a copy of this record kept by each individual who has signed. When samples (or groups of samples) are not under direct control of the individual responsible for them, they must be stored in a locked container sealed with a Chain of Custody seal.

The Chain of Custody record will include (at minimum) the following:

1. Sample identification number.
2. Sample information.
3. Sample location.
4. Sample date.
5. Name(s) and signature(s) of sampler(s).
6. Signature(s) of any individual(s) with control over the samples.

4.4.4 Chain of Custody Seals

Chain of Custody Seals demonstrate that a sample container has not been tampered with, or opened. The individual in possession of the sample(s) will sign and date the seal, affixing it in such a manner that the container cannot be opened without breaking the seal. The name of this individual, along with a description of the sample packaging, must be noted in the Field Logbook.

2. Document sample holding times; this includes documentation of sample collection and analysis dates.
3. Provide QC Summary sheets: referenced forms found in SW-846, Chapter 1.
 - a. Initial and continuing laboratory instrument calibration verification (Form 2).
 - b. Initial and continuing calibration blanks and preparation blank summary (Form 3)
 - c. A MS/MSD will be performed for at least 10% of the samples collected at a MS/MSD spiking level of 500 ppm. Spike sample recoveries and duplicate results for MS/MSD analysis (Form 5a and 6).
 - d. Laboratory control sample (Form 7).
 - e. Sample Holding times and analytical sequence (Form 10).
4. Provide copies of all raw data including instrument printouts and preparation and analytical laboratory notebook pages for all samples, standards, blanks and MS/MSD.
5. For soil and sediment samples, one rinsate blank will be collected.
6. Provide Chain of Custody forms.

7.0 DELIVERABLES

The TATPM Robert Wise, will maintain contact with the OSC Dan Shane, to keep him informed about the technical and financial progress of this project. This communication will commence with the issuance of the work assignment and project scoping meeting. Activities under this project will be reported in status and trip reports and other deliverables (e.g., analytical reports, final reports) described herein.

This sampling event requires analytical services. Documentation of lab selection, raw data, or results will be provided in the final report. A review of the data generated under this plan will be undertaken. The assessment of data acceptability or usability will be documented under the data validation report.

A final report will be prepared to correlate available background information with data generated under this sampling event and identify supportable conclusions and recommendations which satisfy the objectives of this QA/QC Sampling Plan.

AMENDMENTS TO SAMPLING PLAN

Section 4.2: Sampling Design

The original sampling plan called for the collection of five samples at the residence directly south of the facility. Due to a mistake in perceived wind direction, only two samples will be collected at that location.

The three remaining samples will be collected on the public right of way in front of 6612 Clara St, the public right of way in front of 6625 Clara St. and the backyard at 6615 Clara St., respectively.

After reviewing the analytical method it was determined that a nitric acid rinse for non-dedicated sampling tools was not necessary.

The samples will be submitted to Calscience Environmental Laboratories for analysis per SW-846 method 6010.

Due to access problems, on-site and off-site samples will be collected approximately 16 days apart. Due to the six month holding time on lead samples, this will not affect data quality.

Section 4.5: Sampling Handling and Shipment

Due to the time period between sample collection, the samples will be stored in the TAT office. Samples collected on February 18, 1992 were custody sealed and logged onto a chain of custody form prior to storage. The boxes with the samples will be custody sealed.

Section 4.6: Schedule of Activities

Off-site characterization will occur on February 18, 1992. On-site characterization will occur on March 5, 1992.

Section 5.0: Project Organization and responsibilities

Personnel for the March 5, 1992 sampling activity will include: R. Wise, TAT; C. Jones, TAT; and D. Shane, FOSC.

ATTACHMENT A
SITE SAFETY PLAN

ecology and environment, inc.

SITE SAFETY PLAN

Version 988

A. GENERAL INFORMATION

Project Title: King Neptune Lead Site
TDD/PAN/Proj No: ECA1877-SAA
Proj. Manager: R. Wise Proj. Dir: D. Shane
Location: 6612 Clara St., Bell Gardens, California
Prepared by: R. Wise Date Prepared: Feb. 10, 1992
Approval by: _____ Date Approved: _____
Site Safety Officer Review: _____ Date Reviewed: _____
Scope/Objective of Work: Site assessment
Proposed Date of Field Activities: February 18, 1992
Background Info Complete: X Preliminary*: _____
*No Analytical Data Available

Documentation/Summary

Overall Chemical Hazard	Serious:	_____	Moderate:	<u>X</u>
	Low:	_____	Unknown:	_____
Overall Physical Hazard	Serious:	_____	Moderate:	_____
	Low:	<u>X</u>	Unknown:	_____

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B. SITE/WASTE CHARACTERISTICS

Waste Type(s)

Liquid: _____ Solid: X Sludge: _____ Gas/Vapor: _____

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C. HAZARD EVALUATION

List Hazards by Task (i.e., drum sampling, drilling, etc.) and number them. (Task numbers are cross-referenced in Section D)

Physical Hazard Evaluation:

Task 1. Site Walk Through

Task 2. Smelter Walk Through

Task 3. Soil Sampling On-site

Task 4. Soil Sampling Off-site

Task 5.

Chemical Hazard Evaluation

Compound: Lead

PEL/TWA: 0.050 mg/m³ (based on OSHA PEL)

Route of Exposure: Inhalation, Ingestion, Contact

Acute Symptoms: Weak, lass, insom; facial pallor; pal eye, anor, low-wgt, malnut; constip, abdom pain, colic; anemia; gingival lead line; tremor; para wrist, ankles; encephalopathy; nephropathy; irrit eyes; hypertension

Odor Threshold/Description: Not Applicable

Compound:

PEL/TWA:

Route of Exposure:

Acute Symptoms:

Odor Threshold/Description:

Compound:

PEL/TWA:

Route of Exposure:

Acute Symptoms:

Odor Threshold/Description:

- o Level D: O2 <19.5% or >25%, explosive atmosphere >10% LEL, organic vapors above background levels, particulates >0.52 mg/M3, other:
- o Level C: O2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors (in breathing zone) >5 ppm, particulates >~~19.53~~^{26.04} mg/M3, other: Particulates based on a maximum concentration of ~~125~~⁴⁸,000 ppm lead found on-site x the 50 fold protection factor for level C.
- o Level B: O2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors (in breathing zone) >500 ppm, particulates > mg/M3, other
- o Level A: O2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors >500 ppm, particulates > mg/M3, other

Air Monitoring (daily calibration unless otherwise noted)			
Contaminant of Interest	Type of Sample (area, personal)	Monitoring Equipment	Frequency of Sampling
Radiation	Area	Gieger Counter	Continuous
Particulates	Area	Mini-Ram	Continuous

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:

Hand auger will be decontaminated using a aqueous TSP solution wash and DI water rinse followed by a ~~dilute nitric acid rinse~~ ^{2aw} and final DI water rinse. The nitric acid rinse will be applied as a fine mist. One rinsate blank will be collected from the final DI water rinse.

Personnel Decon Protocol:

Dry decon will be used

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E. EMERGENCY INFORMATION

(Use supplemental sheets, if necessary)

LOCAL RESOURCES

(Obtain a local telephone book from your hotel, if possible)

Ambulance 911

Hospital Emergency Room Rio Hondo Memorial: (213) 806-1821

Poison Control Center See attached sheet

Police (include local, county 911
sheriff, state)

Fire Department 911

Airport Not Applicable

Agency Contact (EPA, State, Local USCG, etc.)
Gerry Munoz (213) 744-5304

Local Laboratory Not Applicable

UPS/Fed Ex Not Applicable

Client/EPA Contact Dan Shane (415) 744-2000

Site Contact Gerry Munoz

SITE RESOURCES

Site Emergency Evacuation Alarm Method: _____

Water Supply Source _____

Telephone Location, Number _____

Cellular Phone, if available _____

Radio _____

Other _____

EMERGENCY ROUTES

(NOTE: Field Team must Know Route(s) Prior to Start of Work)

Directions to hospital (include map)

Go south on Clara to Scout. Turn left onto Scout. Take Scout to Florence. Make a right turn onto Florence. Take Florence to Paramount. Make a left onto Paramount. Take Paramount to Telegraph. Make a right onto Telegraph. Rio Hondo Memorial Hospital is located at 8300 E. Telegraph Rd. Downey.

Emergency Egress Routes to Get Off-Site

Site can be exited either through the front or back yards.

INSTRUMENTATION		No.	DECON EQUIPMENT	No.
OVA			Wash Tubs	
Thermal Desorber			Buckets	X
O2/Explosimeter & Cal Kit			Scrub Brushes	X
Photovac Tip			Pressurized Sprayer	X
HNu			Detergent - Type: TSP	X
Magnetometer			Solvent - Type: Nitric Acid (dilute)	X
Pipe Locator			Plastic Sheeting	X
Weather Station			Tarps and Poles	
Draeger Pump and Tubes			Trash Bags	X
Brunton Compass			Trash Cans	
HCN Monotox			Masking Tape	
H2S Monotox			Duct Tape	X
Heat Stress Monitor			Paper Towels	X
Noise Equipment			Face Mask Sanitizer	
Air Sampling Pumps			Folding Chairs	
Mini-Ram	X		Step Ladders	
			Distilled Water	X
RADIATION EQUIPMENT		No.	SAMPLING EQUIPMENT	No.
Documentation Forms			Sample Jars	X
Portable Ratemeter			VOA Vials	
Scaler/Ratemeter			Air Sampling Pump	
NaI Probe			Supplies and Collection Media	
ZnS Probe			Type:	
GM Pancake Probe				
GM Side Window Probe				
Micro R Meter	X		String	
Ion Chamber			Hand Bailers	
Alert Dosimeter			Thieving Rods	
Pocket Dosimeter			Scoops/Trowels	X
			Knives	



DETAIL

LOS ANGELES CO.

larger amounts of lead are necessary to cause toxic effects by this route, and a longer period of exposure is usually necessary to produce symptoms. On the other hand, upon inhalation, absorption takes place easily from the respiratory tract and symptoms tend to develop more quickly. For industry, inhalation is much more important than is ingestion. For the general population, exposure to lead occurs from inhaled air, dust of various types, and food and water with an approximate 50/50 division between inhalation and ingestion routes. Lead occurs in water in either dissolved or particulate form. At low pH, lead is more easily dissolved. Chemical treatment to soften water increases the solubility of lead. Adults absorb about 5-15% of ingested lead and retain less than 5%. Children absorb about 50% and retain about 30%.

Lead produces a brittleness of the red blood cells so that they hemolyze with but slight trauma; the hemoglobin is not affected. Due to their increased fragility, the red cells are destroyed more rapidly in the body than is normal, producing an anemia which is rarely severe. The loss of circulating red cells stimulates the production of new young cells which, on entering the blood stream, are acted upon by the circulating lead, with resultant coagulation of their basophilic material. These cells after suitable staining, are recognized as "stippled cells." There is no uniformity of opinion regarding the effect of lead on the white blood cells.

In addition to its effect on the red blood cells, lead produces a damaging effect on the organs or tissues with which it comes in contact. No specific or characteristic lesion is produced. Autopsies in deaths attributed to lead poisoning and experimental work on animals have shown pathological lesions of the kidneys, liver, male gonads, nervous system, blood vessels and other tissues. None of these changes, however, has been found consistently. In cases of severe lead poisoning, the amount of lead found in the blood is frequently in excess of 0.07 mg per 100 cc of whole blood. The urinary lead excretion generally exceeds 0.1 mg per liter of urine.

Flammable in the form of dust when exposed to heat or flame. Moderately explosive in the form of dust when exposed to heat or flame. Mixtures of hydrogen peroxide + trioxane explode on contact with lead. Rubber gloves containing lead may ignite in nitric acid. Violent reaction on ignition with chlorine trifluoride; concentrated hydrogen peroxide; ammonium ni-

trate (below 200° with powdered lead); sodium acetylide (with powdered lead). Incompatible with NaN_3 ; Zr; disodium acetylide; oxidizing materials. Can react vigorously with oxidizing materials. A common air contaminant. When heated decomposition it emits highly toxic fumes of Pb.

LCG000 CAS: 301-04-2
LEAD ACETATE

DOT: UN 1616

mf: $\text{C}_4\text{H}_6\text{O}_4 \cdot \text{Pb}$ mw: 325.29

PROP: Trihydrate: colorless crystals or granules or powder. Slightly acetic odor, slowly effloresces. D: 2.55, mp: 75° (when rapidly heated), decomp above 200°. Very sol in alcohol.

SYNS: ACETATE de PLOMB (FRENCH) * ACETIC ACID LEAD (2+) SALT * BLEIACETAT (GERMAN) * DIBASIC LEAD ACETATE * LEAD (2+) ACETATE * LEAD(II) ACETATE * LEAD DIACETATE * LEAD DIBASIC ACETATE * NORMAL LEAD ACETATE * PLUMBOUS ACETATE * RCRA WASTE NUMBER U144 * SALT of SATURN * SUGAR of LEAD

CONSENSUS REPORTS: IARC Cancer Review: GROUP 3 IMEMDT 7,230,87; Animal: Sufficient Evidence IMEMDT 23,325; Human: Sufficient Evidence IMEMDT 1,40,72; Human Limited Evidence IMEMDT 23,325,80. NTP Fourth Annual Report On Carcinogens, 1984. Lead and its compounds are on the Community Right-To-Know List. Reported in EPA TSCA Inventory. EPA Genetic Toxicology Program.

OSHA PEL: TWA 0.05 mg(Pb)/m³

ACGIH TLV: TWA 0.15 mg(Pb)/m³

NIOSH REL: (Inorganic Lead) TWA 0.05 mg(Pb)/m³

DOT Classification: ORM-E; Label: Non-Hazardous; Poison B; Label: St. Andrews Cross.

SAFETY PROFILE: Confirmed carcinogen with experimental neoplastigenic and tumorigenic data. Poison by ingestion, intraperitoneal, subcutaneous, and intravenous routes. Experimental teratogenic and reproductive effects. Human mutation data reported. Used as color additive in hair dyes, an insecticide, an astringent, a sedative. Incompatible with KBrO_3 , acids, soluble sulfates, citrates, tartrates, chlorides, carbonates, alkalies, tannin phosphates, resorcinol, salicylic acid, phenol, chloral hydrate, sulfuric acid.

DRAFT REPORT ONLY

ATTACHMENT D
DATA VALIDATION SUMMARY

ANALYTICAL REPORT

ecology & environment, inc.
 11 Goldenshore Drive, #110
 Long Beach, CA 90802

Date Sampled: 02/18/92-
 03/05/92
 Date Received: 03/06/92
 Date Digested: 03/09/92
 Date Analyzed: 03/10/92
 Work Order No.: 92-03-048
 Page 1 of 2

Attn: Robert Wise

RE: ZT1091 King Neptune Manufacturers Method: EPA 6010

All concentrations are reported in mg/kg (ppm).

<u>Sample Number</u>	<u>Total Lead Concentration</u>	<u>Det'n Limit</u>
1	471	25
2	25.8	2.5
3	6120	250
4	11100	500
5	147	5.0
6	78.3	2.5
7	74.9	2.5
8	272	25
9	59.0	2.5
10 *	3.42	0.025
11 *	18.1	0.025
12	100	2.5
13	135	5.0
14	35.4	2.5
15	1910	50
16	234	25
17	118	5.0
18	2010	50
19	1370	50

ANALYTICAL REPORT

ecology & environment, inc.
 11 Goldenshore Drive, #110
 Long Beach, CA 90802

Date Sampled: 02/18/92-
 03/05/92
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 Page 2 of 2

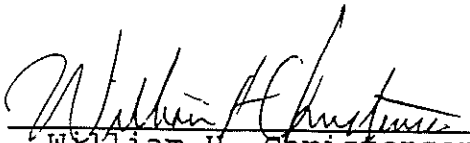
Attn: Robert Wise

RE: ZT1091 King Neptune Manufacturers Method: EPA 6010

All concentrations are reported in mg/kg (ppm).

<u>Sample Number</u>	<u>Total Lead Concentration</u>	<u>Det'n Limit</u>
20	3540	250
21	507	25
22	4460	250
23	3040	250
24	5900	250
25	547000	50000
26	455000	25000
Method Blank #1	ND	0.25
Method Blank #2	ND	0.25
Method Blank #3	ND	0.25
Method Blank #4*	ND	0.025

<u>Sample Number</u>	<u>Conc. Added</u>	<u>Conc. Rec.</u>	<u>%D</u>
Control Standard*	0.050	0.050	0
Control Standard	1.00	0.95	5.1

Reviewed and Approved  on 03/18/1992.
 William H. Christensen
 Laboratory Operations
 Manager

* Analysis was conducted by method EPA 7421.

ND denotes not detected at indicated detection limit.

Each sample was received by CEL in a chilled state, intact and with chain-of-custody attached.

Calscience Environmental Laboratories, Inc.

Analytical Quality Control Report

Client: ecology & environment, inc.
Work Order No.: 92-03-048
Method: ICP Metals (Solid)
Date(s) QC Analyzed: 03/10/92
Page: 1 of 1

Reviewed by: V. H. [Signature]
Date Reviewed: 3/15/92

Matrix Spike and Spike Replicate Results

<u>Analyte</u>	<u>Method</u>	<u>[Sample]</u>	<u>[Spike] Added</u>	<u>[Matrix Spike]</u>	<u>%REC</u>	<u>Replicate [Matrix Spike]</u>	<u>%REC</u>	<u>Control Limit %REC</u>	<u>%RPD</u>	<u>Control Limit %RPD</u>
Lead	6010	135	500	598	93	538	81	70 - 130	14	0 - 30
=====										
Lead	6010	471	500	947	95	968	99	70 - 130	4	0 - 30
=====										
Lead	6010	5900	500	6490	118	6520	124	70 - 130	5	0 - 30

Page 1 of 1 notes:

1. All concentration values contained herein are in mg/kg (ppm).

CHAIN OF CUSTODY RECORD

PROJ. NO. ZT1091		PROJECT NAME KING NEPTUNE MANUFACTURERS LEAD SITE				NO. OF CON- TAINERS	REMARKS											
SAMPLERS (Signature) <i>Robert Z. Wise</i>							<div style="transform: rotate(-45deg); display: inline-block;"> Total Lead 50046-7421 MS/MSD </div>											
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION													
1	2/18	1020		X	6622 Clara	1	X											
2	2/18	1020		X	6622 Clara	1	X										Standard Turn-Around - 7 Days	
3	2/18	1015		X	Public Right of Way at 6612 Clara	1	X										Send the results to the	
4	2/18	1045	X		Drainage Pathway SW Alley next to 6612 Clara	1	X										attention of Robert Wise	
5	2/18	1115	X		Public Right of Way at 6625 Clara	1	X											
6	2/18	1115	X		6615 Clara	1	X										Please Homogenize all samples thoroughly.	
7	2/18	1115	X		6615 Clara	1	X											
8	2/18	1145	X		7743 Scout	1	X											
9	2/18	1145	X		7743 Scout	1	X											
10	2/18	1145	X		School	1	X											
11	2/18	1230	X		Park	1	X											
12	2/18	1215	X		7751 Scout	1	X											
13	2/18	1215	X		7751 Scout	3	X	X										
14	2/18	1240		X		1	X											
15	2/18					1	X											

Relinquished by: (Signature) <i>Robert Z. Wise</i>	Date / Time 3/5/92 1541	Received by: (Signature) <i>Monica Honyojai</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature) <i>Monica Honyojai</i>	Date / Time 3/6/92 0915	Received by: (Signature) <i>T. [Signature]</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature) <i>T. [Signature]</i>	Date / Time 3/4/92 1100	Received for Laboratory by: (Signature) <i>Kari R. Cook</i>	Date / Time 3/6/92 10:50	Remarks Client is ecology & environment	

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files